

Appln. No. 10/578,355  
Amendment dated March 29, 2011  
Reply to Office Action dated September 29, 2010

### Remarks/Arguments

#### **Pending Claims:**

Claims 1 through 6 and 8 through 18 are currently pending in the application.

No new matter has been added with this Amendment.

#### **Rejections Under 35 U.S.C. 112**

The Examiner has rejected claims 1 through 6 and 16 and 17 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner contends that the specification as originally filed does not support the previous amendment to claim 1 of the Application. Applicants respectfully disagree with this assessment, however Applicants have removed these limitations with the present amendment, and therefore believe that the §112 rejections have been rendered moot.

The Examiner has also rejected claim 4 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Applicants note that this rejection is also based, ultimately, on the previously added language to claim 1. The limitations at issue have been removed with this Amendment, and applicant therefore believes that the Examiner's rejection of claim §112 is also rendered moot.

#### **Rejections Under 35 U.S.C. 102**

The Examiner has rejected claims 1 through 4, 6, 16, and 17 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,340,744, issued to Leif et al.

Applicant has amended claim 1 herewith to clarify that the composition of claim 1 is a "solid" composition. This limitation was previously in the preamble of the claim, and the Examiner was giving little or no weight to the use of the word. The requirement of a solid composition has now been moved into the body of the claim.

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U.S. Patent No. 6,340,744 ("the '744 patent") is directed to an aqueous micellar solution. As noted in column 9, line 61, through column 10, line 3, of the '744 patent:

*"Also in accordance with this invention, the enhanced luminescence of the composition of the invention is produced by the interaction in an aqueous micelle organization of an energy transfer acceptor lanthanide element macrocycle compound as defined above with a luminescence-enhancing amount of at least one energy transfer donor compound of yttrium or a 3-valent lanthanide element having atomic number 59-71, preferably a compound of yttrium, lanthanum, or gadolinium. The energy transfer donor compound is ionic and soluble in water."* (emphasis added)

Column 10, lines 21 to 34, of the '744 patent states:

*"The enhanced luminescence composition of the invention exists in a micellar organization. The importance of micellar organization to the enhanced luminescence composition is demonstrated by the observation that a water-miscible polar solvent such as ethanol when added to the characteristically cloudy and luminous composition completely discharges the luminescence and simultaneously turns the cloudy micellar liquid clear. Once formed in an aqueous micellar organization, the composition of the invention can be transferred to an immiscible non-aqueous medium and/or dried, as by evaporation or lyophilization, with preservation of its luminescence. To provide the micellar organization, the composition includes a micelle-forming amount of a surfactant."* (emphasis added)

As demonstrated by the passages above, the '744 patent relies on the existence of micelles in order to produce the desired luminescence-enhancing result. The present claims (as currently amended) are directed to a solid composition (claims 1 through 6), or to a single-phase composition (claims 8 through 17). Neither of these limitations allows for the micelles required by the '744 patent. Support for these limitations are found in the specification as filed. The word "solid" appears in the original claims, although the limitation is found in the preamble and has now been moved into the body of the claim. The "single-phase" limitation is found in the specification as filed, both in the claims and the body of the application, though the word "unitary" is often used in the original filing. Paragraph [0017] of the present application indicates that the term "unitary solution" is used to

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describe a homogeneous solution that consists of a single phase. The current amendments to the claims replace the word "unitary" with the words "single-phase" for purposes of clarity.

Applicant Dr. Robert C. Leif submits a Declaration under 1.132 herewith addressing, in part, the requirement of micelles in the '744 patent (in which Dr. Robert C. Leif is also a named inventor), and the present limitations requiring a solid composition or a single-phase solution. As noted in the Declaration, the '744 patent actually teaches away from the present invention by requiring the use of micelles.

In view of the foregoing remarks, the present amendments to the claims, and the Declaration of Dr. Robert C. Leif, Applicants submit that independent claim 1 of the present application is not anticipated by the '744 patent and is allowable thereover.

Claims 2 through 4, 6, 16, and 17 are dependent upon claim 1 and therefore allowable dependent claims depending from a patentable base claim.

The Examiner has also rejected claims 8, 9, 11 and 12 under 35 U.S.C. §102 as being anticipated by U.S. Patent No. 6,340,744, issued to Leif et al. Applicants respectfully disagree.

Applicants refer to the arguments made with respect to the §102 rejections above, and incorporates them here by reference. Claim 8 as currently amended requires a single-phase solution. As noted above, and in the Declaration of Dr. Robert C. Leif, attached, the '744 requires the use of micelles. Micelles, by definition, require more than a single phase. Thus, Applicant submits that claim 8 is allowable over the Examiner's §102 rejection based on the '744 patent.

Claims 9, 11, and 12 are dependent upon claim 8 and therefore allowable dependent claims depending from a patentable base claim.

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With respect to the Examiner's statements regarding product-by-process claims, Applicants respectfully note that claims 8, 9, 11, and 12, as amended, are directed to a single-phase luminescence enhancing solution. Additional claim language referring to properties of the solution after drying simply provide limitations relating characteristics of the claimed solution. Applicants agree with the Examiner that a product in a product-by-process claim is unpatentable if it is the same as, or obvious from, a product in the prior art, regardless of the different methods of making the product. Applicant believe that claims 8, 9, 11, and 12 are directed to a solution having certain characteristics, and not to a product-by-process. Applicant further submit that the current amendments to claim 8 adding the "single-phase" limitation distinguishes the solution of claim 8 from the teachings of the '744 patent, which do not allow for a single phase.

In view of the foregoing, Applicants submit that claims 8, 9, 11, and 12 are allowable over the cited art.

### **Rejections Under 35 U.S.C. §103**

The Examiner has rejected claims 1 through 6, 16, and 17 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,340,744, issued to Leif et al., in view of U.S. Patent No. 4,927,923, issued to Mathis et al.

Applicants refer to the remarks made above with respect to the §102 rejections and incorporates them here by reference. Applicant submits that the present amendments to claim 1 requiring a solid composition are sufficient to distinguish the present invention from that of the '744 patent. The attached Declaration of Dr. Robert Leif sets forth the importance of the differences between the solid composition of the present claim 1, and the claims depending therefrom, and the micellar aqueous solution of the '744 patent. As noted in the Declaration, the '744 patent actually teaches away from the present invention. Further, the micellar solutions of the '744 patent have certain drawbacks, also referred to in the attached Declaration, that are overcome by the present invention. Because the '744 patent teaches away from the present invention, and because the present invention meets needs in areas where the solutions of the '744 patent are deficient or unsuitable, Applicants submit that the solid composition of the present invention is not obvious in view of the

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‘744 patent. Further, Dr. Robert C. Leif, an expert in this field, states in the attached Declaration that he does not believe the present invention to be obvious in view of the ‘744 patent.

The Examiner relies on Mathis et al. for the disclosure of cryptates, but Applicants note that Mathis et al. does not cure the deficiencies of the ‘744 patent, as described above. The claims of the present application that include the limitation of “cryptates” are simply adding that additional limitation to the others of the present invention. The addition of the limitation “cryptates” to the other novel and non-obvious features of the invention is patentable because the underlying invention is patentable for the reasons stated above. Therefore, there is no need for Applicants to distinguish Mathis et al. from the present invention. Applicants note for the record, however, that Applicants do not agree with the Examiner’s assessment of Mathis et al. as it applies to the present invention.

Applicant respectfully submits that claims 1 through 6, 16, and 17 are allowable over the cited art.

The Examiner rejected claims 8, 9, 11, 12 through 15, and 18 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,340,744, issued to Leif et al., in view of U.S. Patent No. 4,927,923, issued to Mathis et al., and further in view of U.S. Patent No. 5,696,240, issued to Vallarino et al.

Applicants refer to the remarks made above with respect to the §102 rejections and incorporates them here by reference. Applicant submits that the present amendments to claim 8, 14 and 15 requiring a single-phase solution are sufficient to distinguish the present invention from that of the ‘744 patent. The attached Declaration of Dr. Robert Leif sets forth the importance of the differences between the present invention and the micellar aqueous solution of the ‘744 patent. As noted in the Declaration, the ‘744 patent actually teaches away from the present invention. Further, the micellar solutions of the ‘744 patent have certain drawbacks, also referred to in the attached Declaration, that are overcome by the present invention. Because the ‘744 patent teaches away from the present invention, and because the present invention meets needs in areas where the solutions of

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the '744 patent are deficient or unsuitable, Applicants submit that the single-phase solution of the present invention is not obvious in view of the '744 patent. Further, Dr. Robert C. Leif, an expert in this field, states in the attached Declaration that he does not believe the present invention to be obvious in view of the '744 patent.

Neither Mathis et al. nor Vallarino et al. make up for the deficiencies of the '744 patent, as set forth above. As such, and for the reasons set forth above, Applicants submit that there is no need to distinguish the Mathis et al. and Vallarino et al. references. The claims are presently presented, which are patentably distinct from the primary references (the '744 patent), are allowable over the cited art.

Applicant submits that claims 8, 9, 11, 12 through 15, and 18 are allowable over the cited art. Applicant further notes that claim 18 has been amended herewith to require a "solid" composition.

### **Double Patenting**

The Examiner has rejected claims 1, 3, 4, and 14 on the ground of non-statutory obviousness-type double patenting. Claims 1, 3, and 4 have been rejected in view of claims 4, 27, and 34 of U.S. Patent No. 5,373,093, and also claim 4 of U.S. Patent No. 5,696,240. Claim 14 has been rejected in view of claim 1 of U.S. Patent No. 6,750,005.

Claim 1 has been amended herewith, and claims 3 and 4 depend from claim 1. Applicant believes that the present amendment to claim 1 renders that claim patentably distinct from the cited claims of U.S. Patent Nos. 5,373,093 and 5,696,240. Because claims 3 and 4 depend from claim 1 and include all of the elements of claim 1, Applicant believes that these claims are also patentably distinct from the cited claims.

With respect to claim 14, Applicants note that the claim has been amended herewith. Applicant believes that the present amendment to claim 14 renders that claim patentably distinct from the cited claim of U.S. Patent No. 6,750,005.

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In view of the foregoing, Applicant respectfully requests that the Examiner withdraw the double patenting rejections.

**CONCLUSION**

Applicant has paid, herewith, the fees for an Extension of Time (third month). Applicant respectfully requests that the Extension of Time be granted.

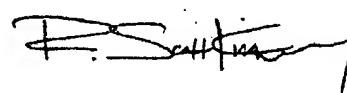
Applicant has also filed herewith a Request for Continued Examination, along with the appropriate fee.

Applicant respectfully submits that all claims pending in the current Application, namely, claims 1 through 6 and 8 through 18, are now in condition for allowance. Applicant requests that a timely Notice of Allowance be issued in this case.

If there are any matters which can be clarified by telephone, the Examiner is requested to contact the undersigned attorney.

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Respectfully Submitted,



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